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Developing high through put screening strategies to identify the next generation of antimicrobials

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Area of expertise: My research interests focus on identifying novel compounds that can disrupt key phenotypes associated with antibiotic resistance such as biofilm formation and motility in the pathogens *Acinetobacter baumannii* and *Pseudomonas aeruginosa*. To this end we have developed a range of screens and assays to facilitate compound identification and mechanism of action profiling in these pathogens. These include: Antibiotic Resistance Inhibitor Screens, Biofilm Inhibition Screens, Biofilm Disruption Screens, Signalling Pathway Specific Biosensor Screens, Mechanism of Action Assays, Resistance Development Screens, Antibiotic Resistance Inhibitor Screens, *In vivo* biofilm and pathogenicity models to validate lead compounds and perform toxicity profiling.

Future goals: Future goals include being part of a collaborative multidisciplinary drug discovery network that has access to diverse and bespoke extract/compound collections and the expertise to identify the bioactive leads, characterise their mechanism of action and ultimately take them forward to clinical trials. Further to this the goal is to target national and international funding opportunities that will facilitate taking active compounds right through the drug discovery pipeline from the bench to the bedside. I am hoping to identify collaborators across all aspects of drugs discovery, particularly collaborators with: Access to compound or extract collections, Expertise in compound identification, Clinical trial expertise.

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